

Date: Tuesday, 28/10/2008 2:32:08 PM  
 User: Jean-Luc Menard

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : HINGE
Job Number : 43018	
Estimate Number : 13568	
P.O. Number :	Part Number : D38143
This Issue : 28/10/2008 S.O. No. :	Drawing Number : D3814 PREL
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : MACHINED PARTS	Drawing Revision : PREL
Previous Run : 42055	Material :
Written By : <u>JLM 08-10-28</u>	Due Date : 04/11/2008 Qty: 2 Um: Each
Checked & Approved By :	
Comment : Est Rev:A New Issue 08-09-03 JLM Verified By: JLM	

Additional Product

PRELIMINARY ISSUE

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M6061T6B2000X03500	6061-T6 Bar 2.00 x 3.50
-----	--------------------	-------------------------



Comment: Qty.: 0.4150 f(s)/Unit Total : 0.8299 f(s)  
 6061-T6 Bar 2.00" X 3.500"  
 BATCH: M16391

J.L 08/10/28

2.0	BAND SAW	BAND SAW
-----	----------	----------



Comment: BAND SAW  
 Cut blank 4.75" long

J.L 08/10/28

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
-----	-------	--------------------------------



Comment: HAAS CNC VERTICAL MACHINING #1

1- Mill as per Folio FA780 Rev. AA & Dwg D3814 Rev. A

2-Deburr per dwg D3814

3-Finish tapping hole to final depth as per Dwg D3814

H.A 08/10/30

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

H.A 08/10/30

5.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

ENGINEERING APPROVAL

09.04.03  
JLM 08-10-30  
 Items were  
 SCRAPPED  
 AFTER TESTING

# Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HINGE

Job Number: 43018

Part Number: D38143

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

HA

08-10-31

(X2)

7.0

POWDER COATING

POWDER COATING



M109152



(2X)

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

\*\*\*MASK THREADED HOLE PRIOR TO POWDER COAT\*\*\*

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:15  
320 OF  
8:45

M-h 08/10/31

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

F-2 08/10/31

(2)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

h 08.10.31 2

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



U 08.10.31  
POSITIVE RECALL  
EFFECTIVE 08.10.31  
RELEASED DATE

ITEMS WERE  
DESTROYED PER  
ATTACHED EMAIL  
FROM HARVEY SIEMENS.

son 07.03



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 43018
<b>Description:</b> HINGE		<b>Part Number:</b> D3814-3
<b>Inspection Dwg:</b> D3814 Rev: A <i>Prelim</i>		<b>Page 1 of 2</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.30	+/- .030	3.301	✓			
0.75	+/- .030	0.750	✓			
0.13	+/- .030	0.127	✓			
R0.25	+/- .030	R0.25	✓			
R0.13	+/- .030	R0.13	✓			
4.00	+/- .030	4.000	✓			
R0.50	+/- .030	R0.50	✓			
0.50	+/- .030	0.501	✓			
0.257	+0.005 / -0.000	0.260	✓			
1.00	+/- .030	1.001	✓			
0.75	+/- .030	0.748	✓			
0.05	+/- .030	0.050	✓			
1.00	+/- .030	0.997	✓			
R0.13	+/- .030	R0.13	✓			
0.21	+/- .030	0.212	✓			
1.05	+/- .030	1.05	✓			
1.81	+/- .030	1.807	✓			
0.13	+/- .030	0.126	✓			
0.75	+/- .030	0.747	✓			
R0.13	+/- .030	R0.13	✓			
0.10 x 45°	+/- .030	0.098 x 45°	✓			
0.05	+/- .030	0.050	✓			
135°	+/- 1/2°	135°	✓			

<b>Measured by:</b> H.A.
<b>Date:</b> 08/10/30

<b>Audited by:</b> <i>[Signature]</i>
<b>Date:</b> 08-10-30

<b>Prototype Approval:</b>
<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 43018
<b>Description:</b> HINGE	<b>Part Number:</b> D3814-3
<b>Inspection Dwg:</b> D3814 <b>Rev:</b> A <i>Phelan</i>	<b>Page 2 of 2</b>

## FIRST ARTICLE INSPECTION CHECKLIST



**X First Article**

**\* Prototype**

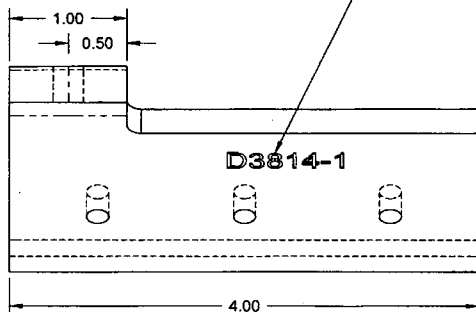
[illegible]

Measured by:	H. A.
Date:	08/10/30

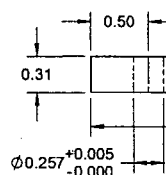
<b>Audited by:</b>	
<b>Date:</b>	

<b>Prototype Approval:</b>	
<b>Date:</b>	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



6  
ENGRAVE P/N TO DEPTH OF 0.005 IN THIS  
LOCATION WITH TOOL TIP RAD OF 0.015±0.005



R0.50

R0.13

2.41

2.12

0.10 X 45°  
CHAMFER

0.28

141°

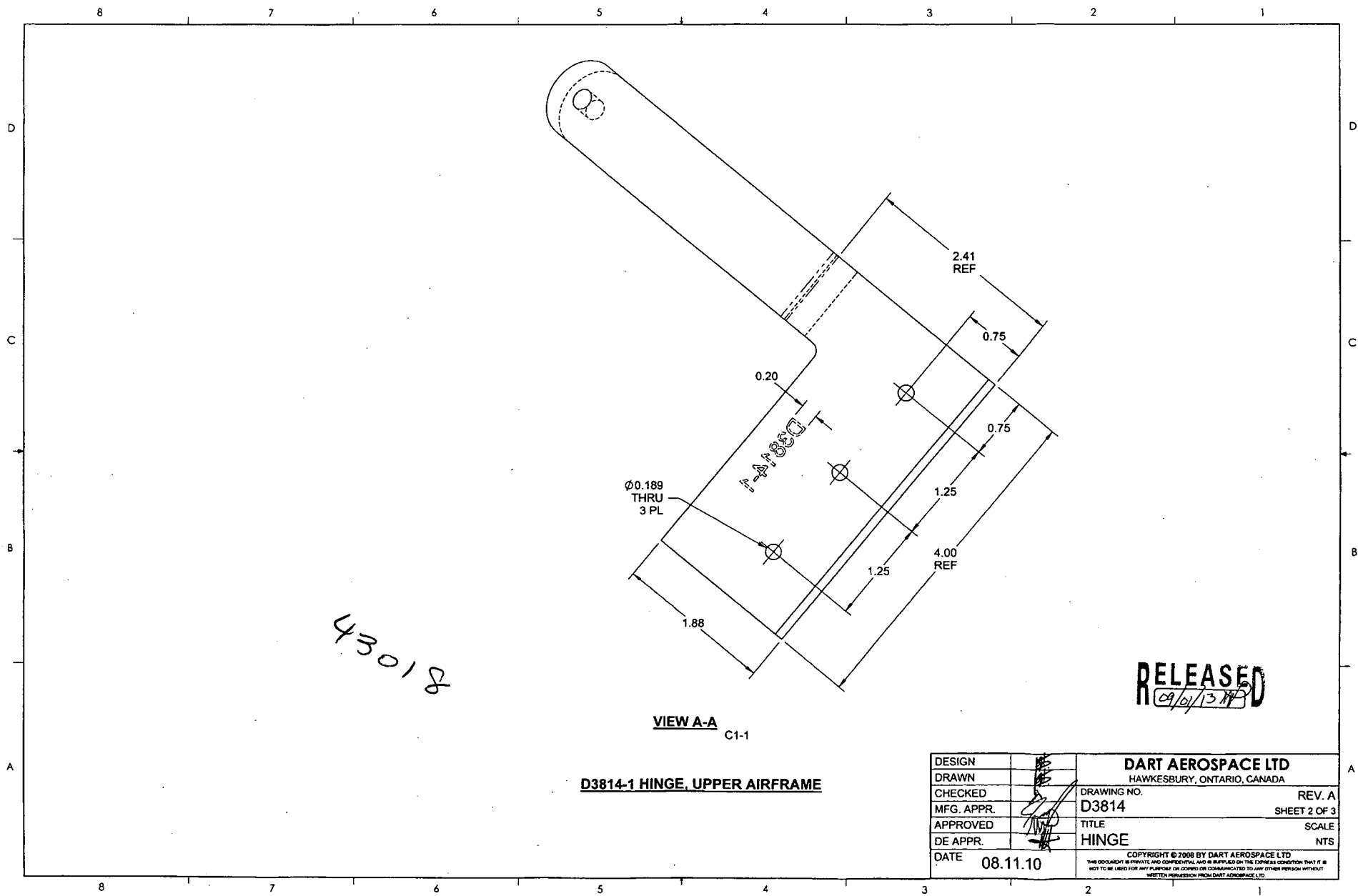
# D3814-1 HINGE, UPPER AIRFRAME

RELEASED  
29/01/13

## NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) PER AMS-QQ-A-200/8 (OR AMS 4160), (REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.020 TO 0.030 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AS SHOWN
- 7) WEIGHT: 0.36 lbs

REV.	NEW ISSUE	DESCRIPTION	BY	DATE
DESIGN				
DRAWN				
CHECKED				
MFG. APPR.				
APPROVED				
DE APPR.				
DATE	08.11.10			
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA				
DRAWING NO. D3814				
REV. A				
SHEET 1 OF 3				
TITLE HINGE				
SCALE NTS				
COPYRIGHT © 2008 BY DART AEROSPACE LTD				
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.				



**VIEW A-A**  
C1-1

**D3814-1 HINGE, UPPER AIRFRAME**

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. <b>D3814</b>	REV. A
MFG. APPR.			SHEET 2 OF 3
APPROVED		TITLE <b>HINGE</b>	SCALE
DE APPR.			NTS
DATE	08.11.10	COPYRIGHT © 2008 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	





**Marc Bellavance**

**From:** Harvey Siemens [hsiemens@dartaero.com]  
**Sent:** April 1, 2009 8:53 AM  
**To:** 'Marc Bellavance'  
**Subject:** RE: stock at Eagle

Yes it was destroyed (scrapped) in testing.

Regards,

*Harvey Siemens*

Mechanical Designer  
DART Aerospace Ltd.

P: 403-717-0328  
F: 403-717-1288  
E: [hsiemens@dartaero.com](mailto:hsiemens@dartaero.com)  
W: [www.dartaero.com](http://www.dartaero.com)  
M: 1060 McTavish Road NE, Calgary, Alberta, T2E 5G9



**Support the national forestry industry – print this email un-necessarily several times**

The information contained in this transmission is privileged and confidential and intended only for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you are hereby notified that any distribution, copying, disclosure or taking of any action in reliance on the contents of this transmission is strictly prohibited and review by any individual other than the intended recipient shall not constitute waiver of privilege. If you have received this transmission in error, please notify us immediately and delete the original transmission.

**From:** Marc Bellavance [mailto:mbellavance@dartaero.com]  
**Sent:** Wednesday, April 01, 2009 6:48 AM  
**To:** 'Harvey Siemens'  
**Cc:** 'Kim Johnston'  
**Subject:** FW: stock at Eagle

Good morning Harvey,

Can you please confirm that P/N D3814-3 (B/N 43018) was destroyed?  
Kim has to close the W/O and it requires engineering's sign off and I was the lucky guy delegated for the task.

Thanks!

**Marc Bellavance**  
**Mechanical Designer/Technical Support**

***DART* aerospace Ltd.**

Tel: 613-632-5200 Ext. 240  
Fax: 613-632-9311  
E-mail: [mbellavance@dartaero.com](mailto:mbellavance@dartaero.com)  
Web: [www.dartaero.com](http://www.dartaero.com)

**From:** L Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** April 1, 2009 8:44 AM  
**To:** 'Marc Bellavance'  
**Subject:** FW: stock at Eagle

03/04/2009

**From:** Harvey Siemens [mailto:hsiemens@dartaero.com]  
**Sent:** March 23, 2009 2:01 PM  
**To:** 'L Lacelle'  
**Cc:** 'David Shepherd'; 'Kelly Labas'  
**Subject:** RE: stock at Eagle

Linda

Here is the disposition of the parts that I know about off the top of my head. David may know what happened to some of these other ones.

D38143 (43018) – used up in testing EC130-780 spacepod/hinge mod  
D38761 (44926), D387611 (44931), D387613 (45208), D38763 (44927), D38765 (44928), D38767 (44929), D38769 (44930) are all cabbage protector interior panels that are currently installed on Eagle Single #7 and should be billed to Eagle. I will contact Kelly and get a PO for those panels coming your way.  
EA2046913 (37234) – in stock in my office  
D31862M (42357), D31882M (42358), D350-600-241 (32295), D350-600-242 (32298) are all part of the EC 130-780 spacepod hinge door kit that Eagle has recently purchased.  
D350-588-041 (36868) – in stock in my office  
D350-604-041 (39324) – in stock in my office

I will check on the wiring harnesses and the heli-access steps and the purge canister but I wouldn't hold my breath on finding any of them – I'll let you know.

David

Feel free to comment on the heli-access-steps or the purge canister if you know their where-abouts - Thanks

Kelly

Please issue PO to Dart for the D3876-1/-3/-5/-7/-9/-11/-13 baggage compartment protectors that are installed on Eagle Single #7 - Thanks

Regards,

*Harvey Siemens*

Mechanical Designer  
DART Aerospace Ltd.

P: 403-717-0328  
F: 403-717-1288  
E: [hsiemens@dartaero.com](mailto:hsiemens@dartaero.com)  
W: [www.dartaero.com](http://www.dartaero.com)  
M: 1060 McTavish Road NE, Calgary, Alberta, T2E 5G9

The information contained in this transmission is privileged and confidential and intended only for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you are hereby notified that any distribution, copying, disclosure or taking of any action in reliance on the contents of this transmission is strictly prohibited and review by any individual other than the intended recipient shall not constitute waiver of privilege. If you have received this transmission in error, please notify us immediately and delete the original transmission.

**From:** L Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** Monday, March 23, 2009 10:35 AM  
**To:** 'Harvey Siemens'  
**Subject:** stock at Eagle

Hi Harvey,  
Not sure who to direct this to, but I need to know if the attached is still all at Eagle for our year end inventory count.  
Please advise asap.

Thank You,  
03/04/2009